

Westchester
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Robert P. Astorino
County Executive

Sherlita Amler, M.D.
Commissioner of Health

October 10, 2013

Professional Consulting, LLC
Octagon 10 Office Center
1719 Route 10, Suite 314
Parsippany, NJ 07054
Attn: Arshad Jalil, P.E.

Re: Comprehensive Monitoring Plan
Village of Tarrytown Water System
Tarrytown (V)
PWS ID# NY5903461

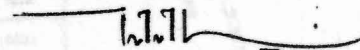
Dear Mr. Jalil:

Enclosed please find the approved copies of the water system Comprehensive Monitoring Plans for the above referenced water supply.

Please ensure that all routine samples for compliance monitoring are taken from the approved locations. Any changes or modification of sample location(s) from the approved plan requires prior written approval from this Department.

Should you have any question or require additional information, please contact this writer at 914-864-7348.

Very truly yours,



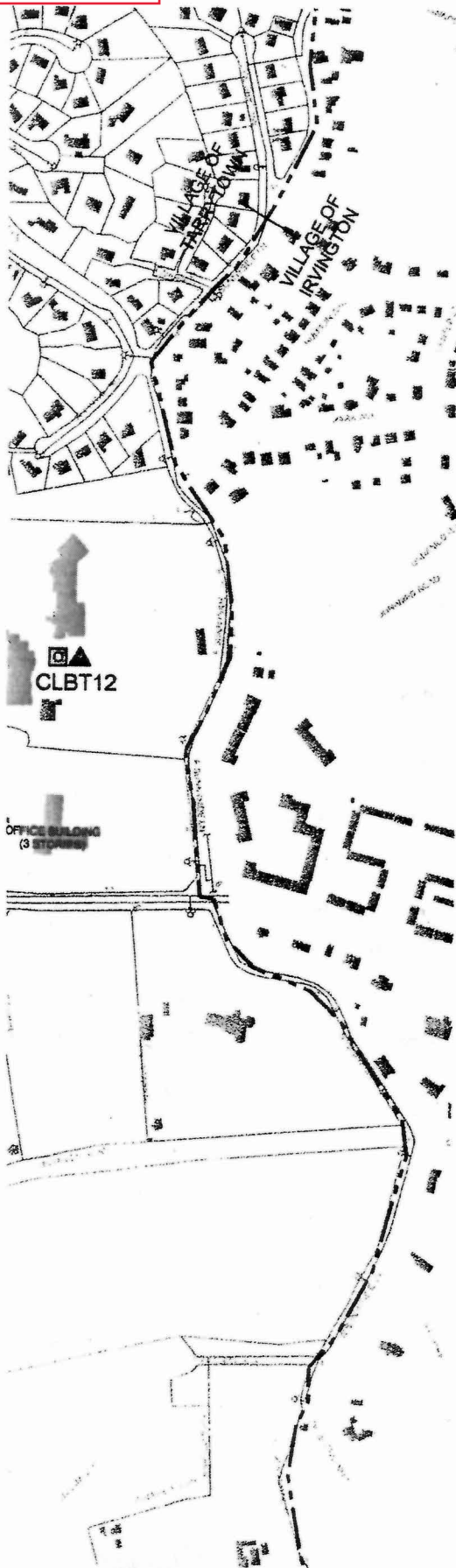
Zaw T. Thein
Assistant Engineer
Bureau of Environmental Quality

enclosure

cc: Michael McGarvey, P.E., Village Engineer, Tarrytown (V)
Steve Cowles, Water System Operator
Delroy Taylor, P.E., WCDOH
File ✓



Exemption 6



LEAD AND COPPER

Samples are collected from the pool of selected sites (30 samples for reduced monitoring and 60 samples for regular monitoring). Regular monitoring is done annually and

★ LEAD AND COPPER SAMPLE LOCATIONS					
No.	Location	Tier Classification	No.	Location	Tier Classification
LC1		T1	LC42		T1
LC2		T1	LC43		T1
LC3		T1	LC44		T1
LC4		T1	LC45		T1
LC5		T1	LC46		T1
LC6		T1	LC47		T1
LC7		T1	LC48		T1
LC8		T1	LC49		T1
LC9		T1	LC50		T1
LC10		T1	LC51		T1
LC11		T1	LC52		T1
LC12		T1	LC53		T1
LC13		T1	LC54		T1
LC14		T1	LC55		T1
LC15		T1	LC56		T1
LC16		T1	LC57		T1
LC17		T1	LC58		T1
LC18		T1	LC59		T1
LC19		T1	LC60		T1
LC20		T1	LC61		T1
LC21		T1	LC62		T1
LC22		T1	LC63		T1
LC23		T1	LC64		T1
LC24		T1	LC65		T1
LC25		T1	LC66		T2
LC26		T1	LC67		T3
LC27		T1	LC68		T3
LC28		T1	LC69		T3
LC29		T1	LC70		T3
LC30		T1	LC71		T3
LC31		T1	LC72		T3
LC32		T1	LC73		T3
LC33		T1	LC74		T3
LC34		T1	LC75		T3
LC35		T1	LC76		T3
LC36		T1	LC77		T3
LC37		T1	LC78		T3
LC38		T1	LC79		T3
LC39		T1	LC80		T3
LC40		T1	LC81		T3
LC41		T1			

ACCEPTED
AS FINAL PLANS

OCT 10 2013

WEST. CO. DEPT. OF HEALTH



Professional Consulting, llc.

Octagon 10 Office Center
1719 Route 10, Suite 314
Parsippany, New Jersey 07054

Phone: 973.683.0044
Fax: 973.683.0077

January 15, 2014

Michael J. McGarvey, P.E.,
Village Engineer
Village of Tarrytown
One Depot Plaza
Tarrytown, NY 10591

RE: Lead & Copper Rule Compliance Report – 2013
Village of Tarrytown, NY
PCI No. 156-1

Dear Mike:

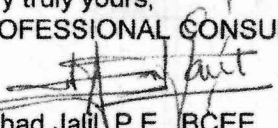
As per our meeting of January 15, 2014, enclosed please find the lead and copper sampling test results for the year-2013 for your review and submission to the Health Department. As you are aware the lead samples results did not meet compliance, and exceeded the action level at 4 of the 30 sampling sites. We understand that the failure at [REDACTED] is due to possible error in sampling/testing at this site. As such, a confirmation sample was obtained and retested at this site which shows compliance.

Based on the above description, we have prepared the following documents for your review and submission to the Westchester County Department of Health (WCDOH).

1. Sample Letter of Transmittal (to be transferred to Village letterhead and signed by the Village engineer)
2. Signed Lead and Copper Rule Monitoring Report
3. 90th Percentile Tables for Lead and Copper-2013
4. Lead and Copper Laboratory Test Results for 30 sampling sites
5. Confirmation Sample test results for [REDACTED]
6. Historic sample test results for [REDACTED]
7. Biweekly Water Quality Parameters (WQP) at the point of Entry

Should you have any questions, please do not hesitate to contact us.

Very truly yours,
PROFESSIONAL CONSULTING, LLC.


Arshad Jalil, P.E., BCEE
Project Manager

Enclosure

C: Howard Wessells, Superintendent DPW-Tarrytown NY
Steve Cowles, Chief Operator-Shaft 10 PS- Tarrytown NY

F:\Home\documents\clients\Tarrytown\156-1- Lead & Copper\correspondance\2014.01.15-MM 2013 lead and copper transmittal.doc

Exemption 6

2013 LEAD AND COPPER RULE MONITORING REPORT

System's Name: Village of Tarrytown Type: ☒ CWS ☐ NTNCWS
Shaft #10 P.S.
Dept. of Public Works

Address:



Size: ☐ >100,000
☐ 50,001 to 100,000
☒ 10,001 to 50,000
☐ 3,301 to 10,000
☐ 501 to 3,300
☐ 101 to 500
☐ ≤100

Telephone #: 914-631-0456
Fax #: 914-631-2258

Federal ID#: 00003461

Contact Person: Steve Cowles, Chief Operator, Type IB

THE RESULTS OF LEAD AND COPPER TAP WATER SAMPLES MUST BE
ATTACHED TO THIS DOCUMENT

of Samples required: 30 # of Samples submitted: 30

90th Percentile Level: Lead 16.1 ug/l Copper 295 ug/l

TARGETING CRITERIA

of single family structures with copper pipes
and lead solder installed after 1982 or lead pipes
and/or lead service lines (Tier 1) 21

of multi-family structures with copper pipes
with lead solder installed after 1982 or lead pipes
and/or lead service lines (Tier 1)
(Only applicable if multi-family structures comprise more
than 20% of the structures served by the water system) N/A

of buildings containing copper pipes
with lead solder installed after 1982 or lead pipes
and/or lead service lines (Tier 2) N/A

of sites that contain copper pipes and lead solder
installed before 1983 (Tier 3) 9

Total: 30

Exemption 6

Explanation of Tier 2 and/or Tier 3 sites are used
(attach additional pages if necessary)

Tier 3 sites were used in order to maintain testing 30 sample sites

LEAD SERVICES LINE SITES

of samples required to be drawn from lead service line sites

N/A

of samples actually drawn from lead service line sites

N/A

Difference (explain differences other than zero)

Method used to identify lead service line sites
(attach additional pages if necessary)

All recourses were found through water applications records from the village

THE RESULTS OF WATER QUALITY PARAMETER (WQP) SAMPLES MUST BE
ATTACHED TO THIS DOCUMENT

of samples required to be collected

N/A

of WQP entry point samples required to be collected

2

of WQP tap samples actually collected and submitted

N/A

of WQP entry point samples actually collected and submitted

2

Stephen A. Conde
Signature

Chief Operator Type 1B
Title

10/16/13
Date

CERTIFICATION OF COLLECTION METHODS

I certify that:

- Each first draw tap sample for lead and copper is one liter in volume and has stood motionless in the plumbing system of each sampling site for at least six hours.
- Each first draw sample collected from a single-family residence has been collected from the cold water kitchen tap or bathroom sink tap.
- Each first draw sample collected from a non-residential building has been collected at an interior tap from which water is typically drawn for consumption.
- Each first draw sample collected during an annual or tri-annual monitoring period has been collected in the months of June, July, August or September.
- Each resident who volunteered to collect tap water samples from his/her home has been properly instructed by (insert water system's name) **Tarrytown Water Department** in the proper methods for collecting lead and copper samples. I do not challenge the accuracy of these sampling results. Enclosed is a copy of the material distributed to residents explaining the proper collection methods, and a list of the results. Sampling was performed by the owners of house/buildings used in the reports.

Stephen G. Cowles
Signature

Stephen G. Cowles
Name

WTP Chief Operator IB
Title

10/16/13
Date

Village of Tarrytown
Lead
First Draw Sample Percentile Results 2013

Sample #	Location	Sample Date	Lead (ug/L)
1		06/18/13	<LOQ
2		06/19/13	<LOQ
3		06/19/13	<LOQ
4		06/18/13	<LOQ
5		06/17/13	<LOQ
6		06/19/13	<LOQ
7		06/19/13	<LOQ
8		06/20/13	<LOQ
9		06/17/13	<LOQ
10		06/19/13	<LOQ
11		08/01/13	<LOQ
12		06/21/13	<LOQ
13		06/17/13	1.03
14		06/19/13	1.29
15		08/09/13	1.41
16		06/19/13	1.51
17		06/19/13	1.53
18		07/23/13	1.58
19		06/19/13	2.01
20		06/19/13	2.82
21		06/17/13	3.28
22		06/19/13	4.03
23		07/23/13	4.6
24		06/17/13	5.48
25		06/19/13	5.63
26		06/18/13	12.3
27		06/19/13	16.1
28		06/20/13	27.3
29		08/01/13	42.0
30		06/19/13	59.4
X 31			

Regulatory Action Limits

Lead 15 micrograms/Liter

16.1 micrograms/ Liter 90th Percentile

$$31 \text{ sample} \times 90\% \Rightarrow 27.94$$

$$\begin{array}{l} 27^{\text{th}} \text{ sample } 12.3 \\ 28^{\text{th}} \text{ sample } 16.1 \end{array} \Rightarrow 16.1 - 12.3 = 3.8 + 0.9 = 3.42$$

$$\Rightarrow 3.42 + 12.3 = 15.72$$

Exemption 6

**Village of Tarrytown
Copper
First Draw Sample Percentile Results 2013**

Sample #	Location	Sample Date	Copper (ug/L)
1		08/09/13	36.5
2		06/17/13	46.1
3		06/19/13	46.6
4		06/19/13	67.1
5		06/19/13	68.5
6		06/19/13	71.5
7		06/17/13	127.0
8		06/19/13	132.0
9		06/19/13	136.0
10		06/19/13	137.0
11		06/19/13	160.0
12		06/19/13	174.0
13		07/23/13	186.0
14		06/19/13	187.0
15		06/18/13	199.0
16		08/01/13	205.0
17		06/18/13	217.0
18		06/17/13	232.0
19		08/01/13	233.0
20		06/19/13	236.0
21		06/17/13	246.0
22		06/19/13	253.0
23		06/19/13	255.0
24		06/20/13	257.0
25		07/23/13	266.0
26		06/18/13	269.0
27		06/21/13	295.0
28		06/17/13	299.0
29		06/20/13	377.0
30		06/19/13	408.0
X 31			

Regulatory Action Limits

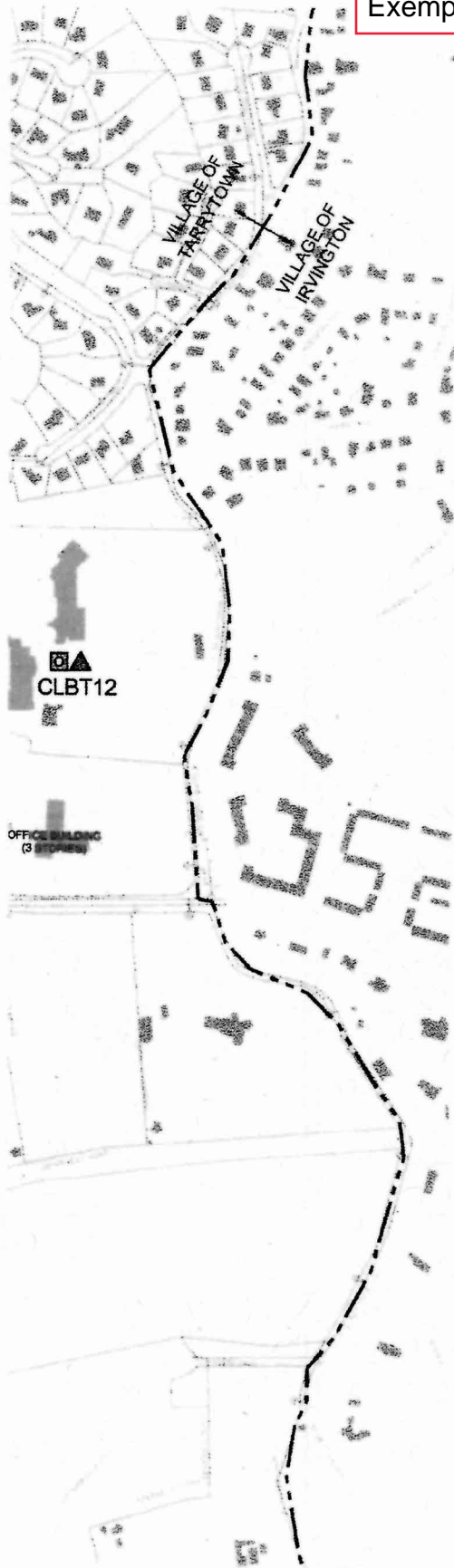
Copper 1300 micrograms/Liter

295 micrograms/ Liter

90th Percentile

$$[(295 - 246) * 0.9] + 246 = 293.1$$

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LC38		T1	LC79		T3
LC39		T1	LC80		T3
LC40		T1	LC81		T3
LC41		T1			

LEAD AND COPPER

Samples are collected from the pool of selected sites (30 samples for reduced monitoring and 60 samples for regular monitoring). Regular monitoring is done annually and reduced monitoring is done once every three (3) year period. Samples are required to be collected during warm season between June and September. Under reduced monitoring samples shall be collected from

ACCEPTED
AS FINAL PLANS

OCT 10 2013

WEST. CO. DEPT. OF HEALTH

BY [Signature]

